

What is claimed is:

1. A method of cast molding a contact lens, the method comprising the steps of:

providing a first contact lens mold section;

providing a molding apparatus and an insert tool adapted to be fixed to the molding apparatus at a plurality of different rotational orientations relative to the molding apparatus;

fixing, at one of a plurality of different rotational orientations relative to the molding apparatus, the insert tool in the molding apparatus and producing a second mold section in the molding apparatus with the insert tool fixed thereto, wherein the second mold section includes a contour which corresponds to a toric optical zone of a contact lens;

assembling the first and second mold sections;

providing a contact lens precursor material between the first mold section and the second mold section;

polymerizing the contact lens precursor material between the first and second mold sections to produce a contact lens product; and

removing the contact lens product from the first and second mold sections.

2. The method of claim 1 wherein the first mold section and the second mold section are adapted to be assembled in only a single rotational orientation, and the assembling step provides the first and the second mold sections in the single rotational orientation.

3. The method of claim 2 which is repeated with the insert tool being fixed at a different one of the plurality of different rotational orientations relative to the

molding apparatus.

4. The method of claim 2 which is repeated a plurality of times with the insert tool being fixed at a different one of the plurality of different rotational orientations relative to the molding apparatus each time the method is conducted.

5. The method of claim 2 further comprising the step of providing, on the first and the second mold sections, corresponding forms adapted to lock the first and the second mold sections in the single rotational orientation during the step of assembling.

6. The method of claim 5 wherein the corresponding forms comprise mating forms.

7. The method of claim 5 wherein the corresponding forms comprise corresponding flats.

8. The method of claim 1 wherein the first contact lens mold section includes a contour which corresponds to a ballast portion of a contact lens.

9. The method of claim 8 wherein the first contact lens mold section includes a contour which corresponds to a desired spherical vision correction zone of a contact lens.

10. The method of claim 1 which is repeated with the insert tool being fixed at a different one of the plurality of different rotational orientations relative to the molding apparatus.

11. The method of claim 1 which is repeated a

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plurality of times with the insert tool being fixed at a different one of the plurality of different rotational orientations relative to the molding apparatus each time the method is conducted.

12. The method of claim 1 wherein the first and second mold sections are structured so that after the assembling step a cavity is defined between the first and second mold sections, and the contact lens precursor material is provided in the cavity.

13. A method of producing contact lens mold sections for cast molding toric contact lenses, the method comprising the steps of:

providing a molding apparatus and an insert tool adapted to be fixed to the molding apparatus at a plurality of different rotational orientations relative to the molding apparatus;

fixing, at one of the plurality of different rotational orientations relative to the molding apparatus, the insert tool in the molding apparatus and producing a toric mold section in the molding apparatus with the insert tool fixed thereto, wherein the toric mold section includes a contour which corresponds to a toric optical zone of a contact lens; and

repeating the fixing step with the insert tool at a different one of the plurality of different rotational orientations relative to the molding apparatus.

14. The method of claim 13 further comprising producing a contact lens product having a desired toric orientation by the steps of:

assembling one of the toric mold sections and a first contact lens mold section;  
providing a contact lens precursor material

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between the first mold section and the one toric mold section;

- 10        polymerizing the contact lens precursor material  
between the first mold section and the one toric mold  
section to produce a contact lens product; and  
removing the contact lens product from the first  
mold section and the one toric mold section.

- 5        15. The method of claim 14 wherein the first mold  
section and the one toric mold section are adapted to be  
assembled in only a single rotational orientation, and the  
assembling step provides the first mold section and the  
toric mold section in the single rotational orientation.

16. The method of claim 14 wherein the first contact  
lens mold section includes a contour which corresponds to  
a ballast portion of a contact lens.

17. The method of claim 14 which is repeated a  
plurality of times with the assembling step being conducted  
using a different one of the toric mold sections each time  
the method is repeated.

18. A set of mold sections useful in molding contact  
lenses, the set comprising:

- 5        a first contact lens mold section; and  
a second contact lens mold section including a  
contour which corresponds to a toric optical zone of a  
contact lens, the first mold section and the second mold  
section being adapted to be assembled in only a single  
rotational orientation.

19. The set of claim 18 wherein the first contact  
lens mold section includes a contour which corresponds to  
a ballast portion of a contact lens.

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20. The set of claim 18 which comprises a plurality of the first contact lens mold sections, and a plurality of the second contact lens mold sections, provided that the rotational orientation of the contour which corresponds to a toric optical zone of a contact lens of each second mold section in an assembled first mold section/second mold section combination is different.

21. The set of claim 18 wherein the first and second mold sections include corresponding forms adapted to facilitate locking the first and second mold sections in the single rotational orientation.

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